

The Children's Garden

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Dedicated to those who touch the lives of children and their families to help them grow, develop, and flourish.

New Patient Education Materials:

All of the Children's Health patient educational materials have been reviewed and revised during the past two years. Spanish versions of most materials are already available. Women & Children's Services hope to have all materials available in Spanish by the end of 2004. Any Children's Health educational materials with a print date prior to 2002 are probably outdated. Contact Sarah Fellows if you have questions about whether certain materials should still be in use in the clinic or not or for a list of the current titles available.

Continuing Education:

In the "sunny south," exposure to sunlight is a year-round possibility. We are bombarded with information about the damage sunlight can do to skin, but many favorite southern activities involve significant sun exposure. South Carolinians enjoy numerous activities in the sun, including water activities, sports, going to the races, and simply getting together with friends and family to barbecue and/or picnic outside. How much sun exposure is too much? Are there benefits to sun exposure beyond participating in outside activities?



Skin cancer is of particular concern in the south. The National Cancer Institute indicates that the rates of this largely preventable type of cancer are rising; approximately 15-16% of South Carolinians currently develop skin cancer. Sun exposure is the main risk factor for the development of skin cancer. According to the Hollings Cancer Center at the Medical University of South Carolina, children receive about 80% of their lifetime sun exposure before the age of 18. Limiting sun exposure during childhood decreases the risk of developing skin cancer.

The American Academy of Pediatrics (AAP) makes the following recommendations for protecting children from sun exposure:

Infants: Birth to One Year of Age:

Infants have sensitive, thin skin that allows sunburns to occur quickly.

- Keep babies younger than 6 months out of direct sunlight.
- Dress babies in lightweight clothing that covers the body, including hats with brims that shade the face and cover the ears.

Editor's Column

In keeping with our topic on sun exposure, I'd like to mention that sun exposure has some positive effects. Obviously one benefit is simply the enjoyment and relaxation that many people experience when spending time outside. Sunlight exposure is thought to affect the moods of some individuals. Limited exposure to sunlight during the winter months has been associated with a disorder known as Seasonal Affective Disorder.

Another less well-known effect is the necessity of sunlight exposure for the synthesis of Vitamin D. Rickets, a disorder in which bones are weakened by the lack of Vitamin D, calcium, and/or phosphate, was relatively common in the U.S. prior to the 1940s. After the benefit of Vitamin D supplementation for Rickets prevention, among other benefits, was discovered in the 1930s, many U.S. milk

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- Contact the baby's health care provider immediately if the baby is sunburned. A severe sunburn is an emergency.
- The risks and benefits of sunscreen use for infants younger than six months of age are not known. Parents should discuss the use of sunscreen with their infant's health care provider, if the infant will be outdoors.
- Use a sunscreen made for children for infants older than 6 months of age.

Children: One Year of Age and Older:

- Use a sunscreen, preferably waterproof, made for children.
- Prior to putting sunscreen all over the child, a small amount should be applied to the back. If a reaction develops, parents should talk to their child's health care provider before using sunscreen.
- If the child has no reaction to the sunscreen, it should be applied to all areas of skin that may be exposed to sunlight. Sunscreen should not be applied to the eyelids and care should be taken to avoid getting sunscreen in the eyes.
- Dress child in clothing made of tightly woven fabric. Sunlight can penetrate some fabrics. Fabric that blocks out light when it is held up to a lamp or sunny window, will protect a child's skin better than fabric that allows the light to shine through. Cotton fabrics are cool, but also protect the skin.
- Hats that shield the child's face are helpful.
- Sunglasses with ultraviolet (UV) protection will protect a child's eyes.

General sun exposure tips:

- Stay out of the sun between 10:00 AM and 4:00 PM if possible. The sun's rays are strongest during these hours.
- Damaging UV rays can reflect off of surfaces such as sand or concrete, increasing exposure even if not in direct sunlight.
- Sunlight can penetrate the clouds on overcast days, so use sun protection even on cloudy days.
- Use sunscreens labeled "broad-spectrum." They protect from both UVB and UVA rays.
- Use sunscreen that provides a sun protection factor (SPF) of at least 15 that is water-resistant or waterproof.
- Apply sunscreen 30 minutes before going outside. It takes a few minutes to start working. Rub the sunscreen in well, covering all exposed areas.
- Reapply waterproof sunscreens every two hours. Water resistant sunscreens may need to be applied sooner, especially if the child is playing in water or sweating.
- Extra sun protection is provided by a sunblock, such as zinc oxide. It can be used on sensitive areas such as the nose, cheeks, tops of the ears and the shoulders.
- If a child gets sunburned, the child should not be in the sun until the sunburn has completely healed.

Current Issues in Children's Health:

Day Care and the Common Cold

"Viral URIs cause half of all illnesses and about 75% of illnesses in young children. Children in day care suffer from more respiratory illnesses than children cared for at home according to several studies. Some evidence suggests that children attending day care acquire increased immunity to infectious illnesses that protects them from illnesses in later years, but other studies have found no evidence of a protective effect."

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suppliers began adding Vitamin D to commercially sold milk. Most infant formulas are also supplemented with Vitamin D. Vitamin D supplements are commonly prescribed for breastfeeding infants in areas where sunlight exposure is more limited than it is in S.C.

As sunscreen use and significantly limiting the time infants are exposed to sunlight has increased, a resurgence of Rickets is being seen in the south, particularly in dark-skinned infants who are breastfed. The 2001 final report of the Vitamin D Expert Panel from the Centers for Disease Control and Prevention indicated that decreased sunlight exposure is the primary reason for the increase of Rickets. The correct use of SPF sunscreen reduces Vitamin D production by 97.5% and SPF 15 reduces production by 99%.

Because a safe level of sunlight exposure in children is not known, the AAP recommends that healthy infants receive 200 IU of Vitamin D a day if they are primarily breastfed and do not have an intake of 500 mL each day of Vitamin D-fortified infant formula or milk. The AAP also recommends that children and adolescents who do not have regular sun exposure, a daily intake of 500 mL of Vitamin D-fortified milk, or a daily multivitamin supplement containing at least 200 IU of Vitamin D receive supplementation of 200 IU of Vitamin D daily.



The Tucson Children's Respiratory Study, conducted by researchers at the University of Arizona in Tucson, included 1,246 children, enrolled in the study at birth. Parents completed questionnaires about their children's respiratory status at years 2, 3, 6, 8, 11, and 13 of the study.

"Children who attended large day care settings (six or more unrelated children) had more frequent colds during the preschool years and fewer colds during subsequent school years until they were 13 years old. The protective effect from respiratory illness was greater for children who had spent more than 2 years in large day care. No protective effect was found for children who attended small day care settings. This study supports the theory that long-term acquired immunity plays a role in protecting children against future respiratory illness." Ball, TM, Holberg, CJ. Aldous, MB, Martinez FD, Wright, AL. Influence of attendance at day care on the common cold from birth through 13 years of age. Archives of Pediatrics and Adolescent Medicine. 2002;156:121-126.

What Do Boys Really Do When They Find Guns?

"About 400 children a year are killed in firearm accidents, and more than 3,000 sustain nonfatal injuries. Most of the shootings (80%) involve boys, and many occur when boys discover guns in the home while playing with friends or siblings."

"Researchers at Emory University in Atlanta and the University of Pennsylvania in Philadelphia set up a study to determine how young boys (8 to 12 Years old) actually behave when they find a handgun in a presumably safe environment and how their behavior compares to parental expectations.

Children were recruited from families that filled out surveys on firearm ownership, storage, and parental perceptions. Parents rated their child's interest in real guns and were asked to bring to the study one of their child's playmates or a sibling in the same age range. Boys were observed through a one-way mirror in a room that contained water pistols and an actual handgun concealed in drawers. The handgun contained a sensor that indicated when the trigger was suppressed with enough force to discharge the gun. Each boy was asked afterward whether he thought the gun was real or a toy and then counseled on safe behavior around guns.

Twenty-nine groups of boys took part in the study. Twenty-one groups discovered the gun and 16 groups handled it. In 10 of the groups, one or more of the boys pulled the trigger. About half of the boys thought it was a toy or were unsure whether it was real. Parental estimate of interest in guns did not predict actual behavior.

These findings contradict the beliefs of many parents who keep guns in their homes. Most 8 to 12-year-old boys can't be trusted not to handle a firearm if they encounter one outside the immediate supervision of an adult."

Jackman, GA, Farah, MM, Kellermann, AL, Simon, HK. Seeing is believing: What do boys do when they find a real gun? Pediatrics. 2001;107:1247-1250.

Upcoming Training Opportunities:

Contact Women and Children's Services for more information on these training opportunities. Register through your child health program manager or district training coordinator.

Child Health Maintenance Course.

Theory and practice in child health issues from a public health perspective.
September 7, 8, 15, & 16, 2004

Child Health Maintenance Course-Part II.

A two-day lecture course that builds upon the content of the Child Health Maintenance Course. The course will include common unusual physical assessment findings, both normal and abnormal and in-depth information on the newborn and postpartum woman. December 6 & 7, 2004.

